



Dart Hawkesbury  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**D212-664-201**  
**Job Sheet 168063-A**



Part No: D212-664-201

Job Qty: 1 ea

Part Name: Aft Crosstube - High



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/9/17

Job Tracking No:

Due Date: 11/15/17

Created By: Linda Lacelle

Type: Stock

Description:

Customer: Rotorcraft Support Inc (CROTO01)

16425 Hart Street Van Nuys, CA, 91406 USA ph:(818) 997-7667 fx:(818) 997-1513.

**Note:** DWG DSI9563 REV B, D212-664-241 REV E IPP Rev:E 04.02.16 Reformat K/DS IPP Rev:F 06-03-29  
Remove Comments on Pick List JLM IPP Rev:G 07-04-30 As per Rev C JLM IPP Rev:H 08-05-22 up date Qty of  
rubber cushion DD ver:EC IPP REV:I 14.05.27 AS PER ECN14-570 DD VERF:JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation           | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|---------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                     |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 90    | Start up Operation  | 1 Ea  | 11/14/17   | 11/14/17 | 0.00      | 0.00    | Start Up Crosstubes   |           | GP          |
| 110   | Packaging           | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | Packaging1            |           | GP          |
| 120   | CNC Bend Crosstubes | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 4.44    | CNC Bend Crosstube    |           | GP, DP      |
| 130   | QC                  | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | QC15                  |           | 38          |
| 140   | Crosstubes          | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 4.99    | Crosstube             |           | 38          |
| 150   | HandFXtube          | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 1.25    | HandFinish5           |           | DAS         |
| 160   | QC                  | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | QC7                   |           | 38          |
| 170   | QC                  | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | QC5                   |           | 38          |
| 180   | Outsource           | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | Outsource2            | 38964     | 12/18/02/08 |
| 190   | Packaging           | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | Packaging2            |           | AT 18/02/08 |
| 200   | QC                  | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | QC5                   |           | 38          |
| 210   | SprayPaint          | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 1.47    | Spray Paint           |           | AB, DAS     |
| 220   | QC                  | 1 pcs | 11/14/17   | 11/14/17 | 0.00      | 0.00    | QC14                  |           | 38          |
| 230   | Crosstubes          | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 1.47    | Crosstube             |           | 38          |
| 240   | QC                  | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 0.00    | QC5                   |           | 38          |
| 250   | Packaging           | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 0.00    | Packaging1            |           | 8           |
| 260   | QC                  | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 0.00    | QC4                   |           | 38          |
| 265   | DC                  | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 0.00    | DC                    |           | 38          |
| 270   | Packaging           | 1 pcs | 11/15/17   | 11/15/17 | 0.00      | 0.00    | Packaging3            |           | DAS         |
| 280   | QC21-FG             | 1 Ea  | 11/15/17   | 11/15/17 | 0.00      | 0.00    | QC21                  |           | 21          |

Part Op 120 - \*\*\*VERF SET-UP BEFORE BENDING BY: \_\_\_\_\_ \*\*\* Bend tube as per Dwg D212-664-241 using  
Descriptions: CNC bender program 212-aft

140 - 1-Drill pilot holes in tube as per Dwg D212-664-241 using drill Jig DT8550, DT8551, drill table DT8577 and locate tower holes #8 as per QSI0010. 2-Ream hole to finish size in tube as per Dwg D212-664-241 using drill Jig DT8550 & DT8551. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes. 3-Scribe part # and batch # using vibrating stylus as per Dwg D212-664-241 4- \*\*\*WEAR LATEX GLOVES HANDLING CROSSTUBE. \*\*\* Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-241

150 - \*\*\*IMMEDIATELY AFTER GRINDING\*\*\*

180 - \*\*\*WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE. \*\*\* Issue P/O: \_\_\_\_\_

190 - \*\*\*WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE. \*\*\*

200 - \*\*\*WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE. \*\*\* Inspect for damage & ensure results are as per

**DART**  
AEROSPACE

**S037551**



Aft Crosstube - High

1270 Aberdeen Street  
Hawkesbury, ON K64 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

**PART NO: D212-664-201**  
**Original Serial #: S037551**

**Revision:**

**Operation:**

**Change No:**

**Start up Operation**  
**CHG006**

01/31/18  
Job No: 168063-A



Dwg D212-664-241

210 - \*\*\* WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE\*\*\* *Primer 138687 Clear P.O. 38687 Paint*

220 - Then, Wrap in plastic bag to protect from scratches

230 - \*\*\*\*\*LAY DOWN CROSSTUBE ON TABLE AND PUT DT10302 PINS IN SADDLE HOLE FACING UP, USE HOLE IN TAPE MEASURE TO PUT IN PINS FOR LOCATING CENTER OF CROSSTUBE. \*\*\*\*\* 1- Abrade mating surfaces of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2- Install supports with Proseal 890 per D212-664-241 and QSI 015 A/R Proseal 890 Batch: *138784* EXP: *9/18*

PROSEAL CURE TIME 72 HOURS: Start: *18-3-15* Finish: *18-3-18* 3- Install clamps with rubber cushion (ENSURE CLAMPS ARE INSTALL ON TOP SIDE OF CROSSTUBE) using DT9565 as per Dwg D212-664-241. \*\*\*Torque all clamps to 80-100 IN-LBS.\*\*\*

240 - \*\*\*RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.\*\*\*

260 - \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_

265 - Photocopy bluefile and create labels as per PPP D212-664-201 *CHG006*

270 - Identify and pack for shipping as per PPP D212-664-201 Location : FG098

### Job Allocations

| Operation                            | Component Part  | Required | Inventory | Allocated | Std Qty |
|--------------------------------------|-----------------|----------|-----------|-----------|---------|
| 90-Start up Operation <i>F149729</i> | D212-664-201TRN | 1        | 8         | 0         | 0       |
| 250-Packaging                        | AN6-40A         | 4        | 82        | 0         | 0       |
|                                      | AN6-41A         | 2        | 56        | 0         | 0       |
|                                      | D3428-1         | 1        | 19        | 0         | 0       |
|                                      | MS21042L6       | 6        | 226       | 0         | 0       |
|                                      | NAS1149D0663J   | 18       | 645       | 0         | 0       |

### Part Specifications

Specifications could not be found.

Plex 11/10/17 12:01 PM DART.LACELLE.LINDA

*D2940-1 5045463(2)*

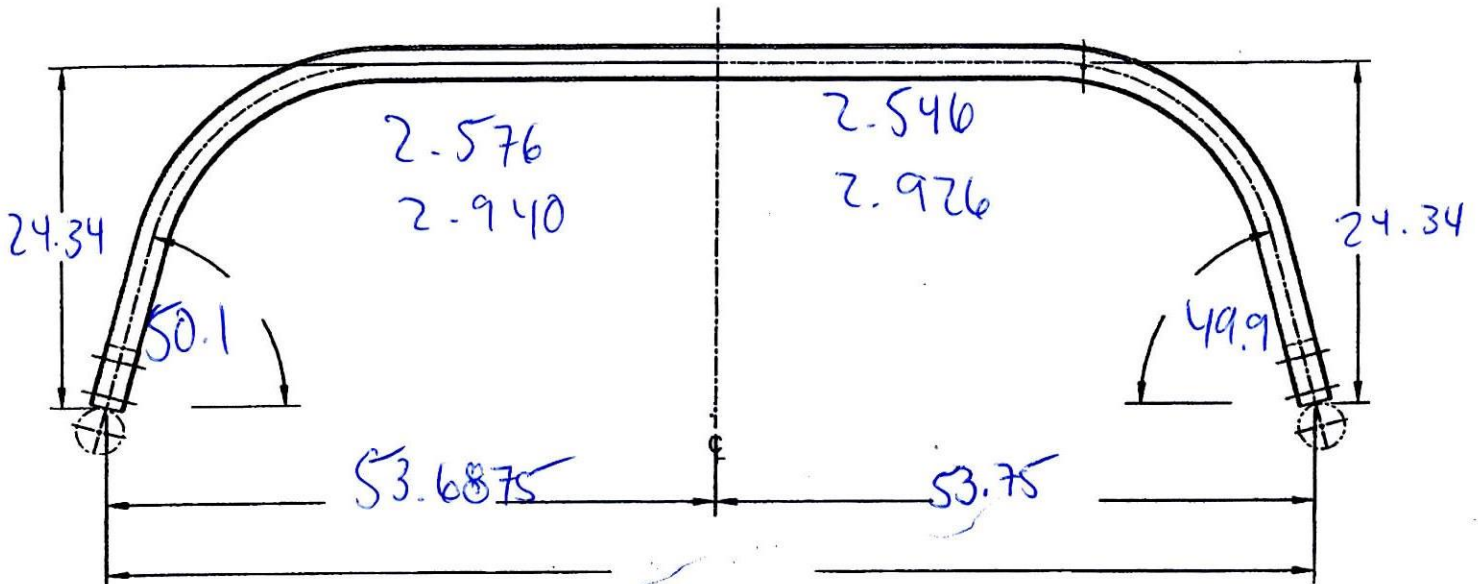
*MS21920-28 5024479(4)*

*D3595-063-530 5052857(4)*

*00/861*

|                                                   |                                  |
|---------------------------------------------------|----------------------------------|
| <b>DART AEROSPACE LTD</b>                         | <b>Work Order:</b> 168063-A      |
| <b>Description:</b> Crosstube High Aft (205/212)  | <b>Part Number:</b> D212-664-201 |
| <b>Inspection Dwg:</b> D212-664-241 <b>Rev:</b> E | <b>Page 1 of 1</b>               |

| Required Dimension | Min    | Max    |
|--------------------|--------|--------|
| Height             | 24.17  | 24.43  |
| 1/2 Span           | 53.59  | 53.85  |
| Angle              | 49     | 52     |
| Total Span         | 107.18 | 107.70 |
| Bending Passes     | 5      | --     |
| Crushing           | --     | 7.2%   |



|                | Side A | Side B |
|----------------|--------|--------|
| Bending Passes | 10     | 10     |
| Crushing       | 6.6%   | 6.9%   |
| Comments       |        |        |
|                |        |        |
|                |        |        |
|                |        |        |
|                |        |        |

|                 |             |
|-----------------|-------------|
| QC15 Inspection | DAS 38      |
| Date            | FEB 01 2018 |

| Rev | Date     | Change                             | Revised by | Approved |
|-----|----------|------------------------------------|------------|----------|
| A   | 07.02.06 | New Issue                          | KJ/JM      |          |
| B   | 07.05.08 | Dimensions updated per Dwg rev. C  | KJ/JLM     |          |
| C   | 10.04.01 | Dwg Rev updated                    | KJ         |          |
| D   | 12.04.16 | Added bending, crushing dimensions | KJ         |          |
| E   | 14.07.08 | Crushing percentage revised        | KJ         |          |





Dart Aerospace Ltd.  
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Canada

Tel (613) 632-5200

# PURCHASE ORDER PO038964

**Supplier:** SKY002-VC  
Skyservice  
6120 Midfield Road  
Mississauga  
ON  
L5P 1B1 Canada  
Phone: 905-678-5636  
Fax: 905-678-5841

**PO No:** PO038964  
**PO Date:** 2/7/18  
**Due Date:** 2/8/18  
**Purchase Order  
Revision:**  
**Revision Date:**  
**Ship-To Contact:** Lacelle, Linda  
Phone: llacelle@dartaero.com

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## Items

| Line Item           | Job      | Part         | Description                                                                                                                                                                         | Status | Due Date | Order Quantity | Received Quantity | Balance              | Unit Price (CAD) | Extended Price  |
|---------------------|----------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|----------------------|------------------|-----------------|
| 1                   | 170234   | D212-664-201 | Aft Crosstube - High<br>***WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE.*** Issue<br>P/O: _____<br>LIQUID PENETRANT INSPECTION<br>AS PER QSI 038 OR<br>LPI AS PER ASTM 1417 LEVEL 2 | Firmed | 2/8/18   | 1 pcs          | 0 pcs<br>1x       | 1 pcs<br>AT 18/02/08 | \$169.00/pcs     | \$169.00        |
| 2                   | 170233   | D212-664-201 | Aft Crosstube - High<br>***WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE.*** Issue<br>P/O: _____<br>LIQUID PENETRANT INSPECTION<br>AS PER QSI 038 OR<br>LPI AS PER ASTM 1417 LEVEL 2 | Firmed | 2/8/18   | 1 pcs          | 0 pcs<br>1x       | 1 pcs<br>AT 18/02/08 | \$169.00/pcs     | \$169.00        |
| 3                   | 170232   | D212-664-201 | Aft Crosstube - High<br>***WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE.*** Issue<br>P/O: _____<br>LIQUID PENETRANT INSPECTION<br>AS PER QSI 038 OR<br>LPI AS PER ASTM 1417 LEVEL 2 | Firmed | 2/8/18   | 1 pcs          | 0 pcs<br>1x       | 1 pcs<br>AT 18/02/08 | \$169.00/pcs     | \$169.00        |
| 4                   | 168063-A | D212-664-201 | Aft Crosstube - High<br>***WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE.*** Issue<br>P/O: _____<br>LIQUID PENETRANT INSPECTION<br>AS PER QSI 038 OR<br>LPI AS PER ASTM 1417 LEVEL 2 | Firmed | 2/8/18   | 1 pcs          | 0 pcs<br>1x       | 1 pcs<br>AT 18/02/08 | \$169.00/pcs     | \$169.00        |
| 5                   | 168063   | D212-664-201 | Aft Crosstube - High<br>***WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE.*** Issue<br>P/O: _____<br>LIQUID PENETRANT INSPECTION<br>AS PER QSI 038 OR<br>LPI AS PER ASTM 1417 LEVEL 2 | Firmed | 2/8/18   | 1 pcs          | 0 pcs<br>1x       | 1 pcs<br>AT 18/02/08 | \$169.00/pcs     | \$169.00        |
| <b>Grand Total:</b> |          |              |                                                                                                                                                                                     |        |          |                |                   |                      |                  | <b>\$845.00</b> |

## Order Notes

#### Order Notes

##### Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 2/8/18 10:22 AM dart.lacelle.linda



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## Container View (Active) - Master Unit Containers

| Master Unit No | Container No | Part No       | Part Name             | From Container | Current Location | Quantity |
|----------------|--------------|---------------|-----------------------|----------------|------------------|----------|
| 001861         | S053725      | AN6-40A       | 3/8-24 Bolt X 3" Long | s019412 ✓      | ST333            | 4        |
| 001861         | S053724      | AN6-41A       | Bolt                  | fm137371-0 ✓   | ST333            | 2        |
| 001861         | S053722      | D3428-1       | Placard               | S038568 ✓      | ST034            | 1        |
| 001861         | S053716      | MS21042L6     | Nut                   | s016881 ✓      | ST303            | 6        |
| 001861         | S053715      | NAS1149D0663J | Washer                | s024481 ✓      | ST263            | 18       |

Note: Ad hoc query view of Part.dbo.Container where Container.Active = 1.

Plex 3/22/18 8:43 AM dart.quirion.sonia